Trials@uspto.gov
571-272-7822

Paper 11
Date: April 25, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARTHREX, INC.,
Petitioner,

v.

MEDSHAPE, INC.,
Patent Owner.

IPR2025-00053
Patent 7,985,222 B2

Before JAMES A. TARTAL, RYAN H. FLAX, and MICHAEL A. VALEK, *Administrative Patent Judges*.

TARTAL, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314, 37 C.F.R. § 42.4

I. INTRODUCTION

Arthrex, Inc. ("Petitioner")[1] filed a Petition pursuant to 35 U.S.C. §§ 311–319 requesting an *inter partes* review of claims 1–10 ("the Challenged Claims") of U.S. Patent No. 7,985,222 B2 (Ex. 1001, "the '222 patent"). Paper 1 ("Pet."). Medshape, Inc. ("Patent Owner")[2] filed a Preliminary Response. Paper 6 ("Prelim. Resp."). With our prior authorization, Petitioner filed a Reply to the Preliminary Response (Paper 8, "Preliminary Reply" or "Prelim. Reply"), and Patent Owner filed a Sur-reply (Paper 9, "Preliminary Sur-reply" or "Prelim. Sur-reply").

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314(b) (2018); 37 C.F.R. § 42.4(a) (2023). An *inter partes* review may not be instituted "unless . . . the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). However, institution of *inter partes* review is discretionary. Upon consideration of the Petition, the Preliminary Response, the Preliminary Reply, the Preliminary Sur-reply, and the evidence of record, we exercise our discretion to deny institution of *inter partes* review under 35 U.S.C. § 314(a) in view of the co-pending district court litigation.

---

[1] Petitioner further identifies Arthrex Manufacturing, Inc. as a real party-in-interest "for purposes of the Board's consideration because Arthrex Manufacturing, Inc. was originally named in the Complaint filed in the below-identified related matter." Pet. x.

[2] Patent Owner identifies no additional real parties-in-interest. Paper 4, 2 (we consider the title page as page 1 and proceed therefrom in numerical order).

II. BACKGROUND

A. The '222 Patent

The '222 patent relates to "osteosynthetic implants for fracture repair and methods of their use and manufacture." Ex. 1001, 1:16–17. The '222 patent explains that "[t]he use of stainless steel or titanium in osteosynthetic devices has a long history and reasonable record of success. Over time, however, the stainless steel and titanium fixation constructs (both screws and plates) do not maintain compression across the fracture fragments." *Id.* at 1:48–52. The '222 patent describes fracture fixation devices, systems and methods that use shape memory materials, such as nickel titanium, to help maintain compressive loads across a fracture site. *Id.* at 2:6–12; *see also id.* at 10:17–25 (stating that "[s]everal devices and systems of the present invention are developed from a Shape Memory Allow (SMA) to actively respond to changes of the human body," including "SMA nickel titanium, or Nitinol" (or "NiTiNOL")).

Figure 1A of the '222 patent, reproduced below, illustrates an embodiment of "a dynamic compression bone screw." *Id.* at 4:38–39.

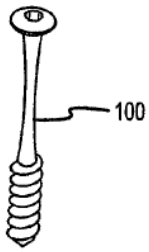

FIG.1A

Figure 1A depicts a perspective view of bone screw 100 formed from Nitinol. *Id.* at 4:51–52. The '222 patent explains that "shape memory alloys, such as Nitinol, exhibit the capacity to recover relatively large strains (e.g., about 6%) by the application of heat (shape memory) or by gradual

unloading (pseudo-elasticity)." *Id.* at 4:57–60. The Nitinol shape memory alloy material of bone screw 100 is thermally treated so that it exhibits pseudo-elasticity at body temperature. *Id.* at 4:63–66. The '222 also explains as follows:

> [s]uperelastic effect of Nitinol refers to the return to its pre-set austenite configuration upon unloading after elastic deformation. The initiation of superelastic behavior of Nitinol requires the formation of stress induced martensite (SIM) from the austenite phase, such as by the application of an external load or stress. Reduction of the external load or stress induces formation of the austenite phase and hence its pre-set configuration. SIM Nitinol is able to accumulate large deflection (strain) at a nearly constant load (stress).

Id. at 5:9–18.

Figures 2A–2C of the '222 patent, reproduced below, illustrate a fracture fixation technique using bone screw 100 "across the appositional ends of a break in the bony cortex." *Id.* at 5:43–44.

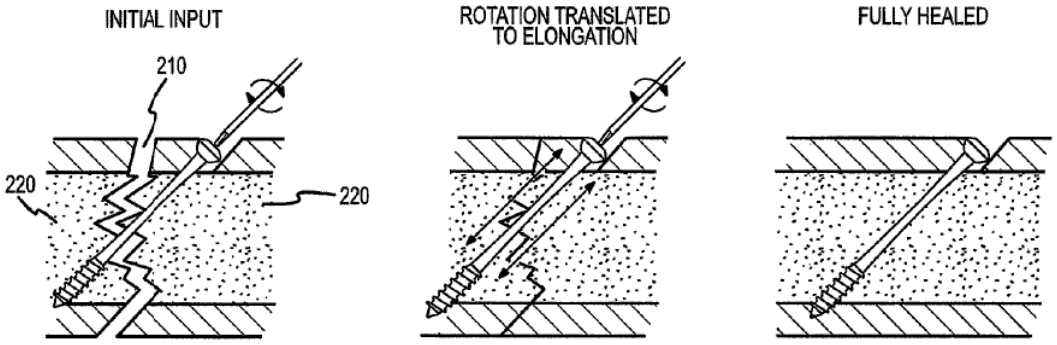

FIG.2A FIG.2B FIG.2C

Figure 2A is a cross-section view of a segment of fractured bone and depicts bone screw 100 inserted at an angle relative to fracture site 210. *Id.* at 5:45–47. As shown in Figure 2B, rotating bone screw 100 draws bone fragments 220 together and creates an axial compressive force between the fragments. *Id.* at 5:47–51. As a result of the installation process, elongation

forces are applied to bone screw 100, which initiates SIM formation. *Id.* at 5:35–39. According to the '222 patent, "[s]crew 100 maintains a compressive force on bone fragments 220 for a much longer period of time than traditional bone screws formed of steel, titanium, or the like," and "a more fully healed fracture site 210 results." *Id.* at 5:52–56.

B. Illustrative Claims

Petitioner challenges claims 1–10 of the '222 patent. Pet. 2. Claim 1, the sole independent claim, is illustrative of the claimed subject matter and is reproduced below, with bracketed labels added as used by Petitioner:

> 1. [1.P] A method, comprising:
> [1.1] inserting a bone device having a longitudinal axis into a first bone fragment and a second bone fragment, wherein the inserting causes a first portion of the bone device to contact the first bone fragment and causes a second portion of the bone device to contact the second bone fragment, the second portion different from the first portion;
> [1.2] wherein the bone device comprises a shape memory alloy having an austenite finish temperature;
> [1.3] creating in a responsive portion of the bone device at least a partial transformation into a stress-induced martensitic phase via stretching the responsive portion along the longitudinal axis;
> [1.4] after performing the stretching, fixing the second portion of the bone device to the second bone fragment; and
> [1.5] wherein the creating is performed at a temperature greater than the austenite finish temperature of the shape memory alloy.

Ex. 1001, 12:31–49; Pet. viii.

C. Asserted Grounds of Unpatentability

Petitioner asserts that the Challenged Claims are unpatentable based on the following grounds:

Claims Challenged	35 U.S.C. §[3]	Reference(s)/Basis
1, 2, 5–10	103	Monassevitch[4]
1–10	103	Bolesky[5], Hoffman[6]

Pet. 3. Petitioner's contentions are supported by the Declaration of Mike Sherman, dated October 17, 2024. Ex. 1002.

D. Related Proceedings

Petitioner and Patent Owner identify as a related proceeding *Medshape, Inc. et al. v. Arthrex, Inc. et al.*, No. 6-24-cv-00151 (W.D. Tex.) (the "Parallel Proceeding"), in which the '222 patent, as well as U.S. Patent No. 8,491,583 ("the '583 patent") are at issue. Pet. x; Paper 4, 2; Ex. 2002, 1.

III. DISCRETIONARY DENIAL UNDER 35 U.S.C. § 314(A)

Under 35 U.S.C. § 314(a), the Director has discretion to deny institution of an *inter partes* review. *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) ("[T]he agency's decision to deny a petition is a matter committed to the Patent Office's discretion."); *SAS Inst. v Iancu*, 138 S. Ct. 1348, 1356 (2018) ("[Section] 314(a) invests the Director with

[3] The Leahy-Smith America Invents Act ("AIA") included revisions to 35 U.S.C. § 103 that became effective on March 16, 2013. We apply the pre-AIA version of § 103 in this proceeding, because the '222 patent issued from an application filed before the effective date of the AIA. *See* Ex. 1001, code (22).

[4] U.S. Patent 6,685,708, issued Feb. 3, 2004 (Ex. 1005, "Monassevitch").

[5] U.S. Patent 4,275,717, issued June 30, 1981 (Ex. 1006, "Bolesky").

[6] U.S. Patent 5,035,712, issued July 30, 1991 (Ex. 1007, "Hoffman").

discretion on the question *whether* to institute review."); *Harmonic v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) ("[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.").

In this proceeding, Patent Owner argues that we should exercise discretion to deny institution under Section 314(a) because the factors identified in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) ("*Fintiv*"), weigh in favor of denying institution. Prelim. Resp. 26–32; Prelim. Sur-reply 7. *Fintiv* identifies the following factors to consider when a patent owner raises an argument for discretionary denial due to the advanced state of a parallel proceeding:

> 1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
>
> 2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
>
> 3. investment in the parallel proceeding by the court and the parties;
>
> 4. overlap between issues raised in the petition and in the parallel proceeding;
>
> 5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
>
> 6. other circumstances that impact the Board's exercise of discretion, including the merits.

Fintiv 5–6. In evaluating these factors, we take "a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review." *Id.* at 6.

A. The Fintiv *Factors*[7]

1. Factor 1: whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted

Patent Owner states that Petitioner has not requested a stay in the Parallel Proceeding and argues that a stay of the Parallel Proceeding is unlikely "given the stage" of the Parallel Proceeding and because the '583 patent, which was not the subject of an *inter partes* review request by Petitioner, is also at issue, in addition to the '222 patent, in the Parallel Proceeding. Prelim. Resp. 28.

On the record before us, neither party has produced evidence that a stay has been requested or that the district court has considered a stay in the Parallel Proceeding. The Board has explained, "[a] judge determines whether to grant a stay based on the facts of each specific case as presented in the briefs by the parties." *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15, 12 (PTAB May 13, 2020) (informative) ("*Fintiv II*") (stating that the Board declined "to infer, based on actions taken in a different case with different facts, how the District Court would rule should a stay be requested by the parties in the parallel case here"). Although we decline to speculate as to how the district court might rule on a motion to stay that has not been filed in the Parallel Proceeding, we agree with Patent Owner that, because

[7] In considering the *Fintiv* factors, we no longer apply the guidance set forth in the memorandum titled "Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation" because it has been rescinded. *See* March 24, 2025 Memo from Chief Judge Scott R. Boalick, "Guidance on USPTO's recission of 'Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation,'" available at www.uspto.gov/sites/default/files/documents/guidance_memo_on interim_procedure_recission_20250324.pdf ("Recission Memo").

the Parallel Proceeding involves another asserted patent that was not the subject of an *inter partes* review petition, a stay of the Parallel Proceeding appears potentially less likely. Accordingly, on this record, factor 1 favors discretionary denial.

2. Factor 2: proximity of the court's trial date to the Board's projected statutory deadline for a final written decision

Under this factor, "[i]f the court's trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution." *Fintiv* 9. Here, no trial date has been set in the Parallel Proceeding. *See* Prelim. Resp. 28; Prelim. Reply 6. Nevertheless, we "may consider any evidence that the parties make of record that bears on the proximity of the district court's trial date . . ., including median time-to-trial statistics for civil actions in the district court in which the parallel litigation resides." Recission Memo 3.

Patent Owner asserts that the schedule set in the Parallel Proceeding "strongly suggests that trial will occur before a final written decision is issued," because "dispositive motions [in the Parallel Proceeding] are due by September 11, 2025, which is nearly eight months before the statutory deadline for a final written decision." Prelim. Resp. 28–29; Prelim. Sur-reply 7. According to Patent Owner, "this is confirmed by statistics from the overall jurisdiction," but Patent Owner provides no "statistics" in support of its argument. *Id.* Refuting Patent Owner's assertion, Petitioner replies that "the current statistics for the Western District of Texas indicate a median time-to-trial of 33.9 months (Ex. 1019, 37), which would result in a trial date in January 2027—over eight months after the April 2026 (expected) deadline for a Final Written Decision." Prelim. Reply 6 (emphasis omitted).

Thus, while Patent Owner speculates that the district court will set a trial date that is earlier than the due date of a final written decision in this proceeding based on the date dispositive motions are scheduled to be due in the Parallel Proceeding, it offers no evidence to support that contention. Moreover, Patent Owner's assertion that its argument is supported by "statistics from the overall jurisdiction" is refuted by Petitioner's evidence of the median time-to-trial in the district where the Parallel Proceeding resides. *See* Ex. 1019, 37. Accordingly, the evidence presented here suggests a January 2027 trial date for the Parallel Proceeding, which is eight months after the projected April 2026 statutory deadline for a final written decision in this proceeding. Ex. 1019, 37. Accordingly, this factor weighs against exercising discretion to deny institution.

3. Factor 3: investment in the parallel proceeding by the court and the parties

Patent Owner contends that factor 3 weighs against institution because "the parties and the [district court] have already made a substantial investment in the Parallel [Proceeding], which will grow even larger by the expected date of the institution in late April." Prelim. Resp. 30. Patent Owner represents that the parties have exchanged infringement and invalidity contentions, engaged in substantial discovery, completed claim construction briefing, and held a *Markman* hearing. *Id.* (citing Ex. 2001; Ex. 2002). In reply, Petitioner argues that "fact discovery only recently opened, and no depositions or third-party discovery have taken place." Prelim. Reply 6.

We recognize that the district court and the parties have invested effort in the Parallel Proceeding. For example, the parties have exchanged infringement and invalidity contentions, and briefed claim construction

issues. *See* Ex. 2001, 1–3. The parties also have participated in a *Markman* hearing. Even so, work remains in the Parallel Proceeding, including fact discovery, expert discovery, and dispositive motion practice. Ex. 2001, 3–4.

The facts here are similar to those in two of the Board's informative decisions, which concluded that this *Fintiv* factor weighs marginally in favor of exercising discretion to deny. *See Sand Revolution II, LLC v. Continental Intermodal Group – Trucking LLC*, IPR2019-01393, Paper 24 at 10–11 (PTAB June 16, 2020) (informative) ("*Sand Revolution*") (finding that *Fintiv* factor 3 "weighs only marginally, if at all" toward discretionary denial even though district court had held a *Markman* hearing and construed the claims, because "much of the district court's investment relates to ancillary matters untethered to the validity issue itself" and "much work remains in the district court case as it relates to invalidity"); *Fintiv II* at 14 (explaining "that much work remains in this case as it relates to invalidity: fact discovery is in its early stages, with document production ongoing and depositions just getting underway, expert reports are not yet due, and substantive motion practice is yet to come"). Based on the level of investment and effort already expended on claim construction and invalidity contentions in the Parallel Proceeding, and considering that much work remains as it relates to invalidity, on this record this factor marginally favors denial.

4. Factor 4: overlap between issues raised in the petition and in the parallel proceeding

Patent Owner contends that factor 4 weighs in favor of discretionary denial because there is complete overlap between the Petition and the Parallel Proceeding. Prelim. Resp. 30–31 (citing Ex. 2002, 1, 13). Patent Owner states that, "[d]espite relying on the exact same art relied upon in this Petition and challenging the exact same claims (Ex. 2002 at 1), Petitioner

does not include any *Sotera*-type stipulation." *Id.* at 27; *see also Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18–19 (P.T.A.B. Dec. 1, 2020) (precedential as to § II.A).

Petitioner does not dispute Patent Owner's assertion that the same prior art and allegations asserted here are also raised by Petitioner in the Parallel Proceeding. *See* Reply 7 (acknowledging that Petitioner's invalidity contentions include the same references asserted in the Petition). Instead, Petitioner argues that a final written decision is likely to issue in this proceeding prior to trial, and that Petitioner will be estopped from contesting the validity of the Challenged Claims in the Parallel Proceeding. *Id.* (citing *Microsoft Corp. v. Interdigital Patent Holdings, Inc.*, IPR2024-00305, Paper 12 at 11 (PTAB May 10, 2024)).

In sum, Petitioner concedes there is a significant overlap in the issues presented here and in the Parallel Proceeding and has not offered a *Sotera*-type stipulation to try to mitigate concerns of duplicative efforts or conflicting decisions between the district court and the Board. *See Sotera* 19 (citing *Sand Revolution* 12). Moreover, any estoppel under § 325(e)(2) does not apply until after a final written decision is issued in this proceeding and, therefore, would not serve to sufficiently mitigate concerns of duplicative efforts and inconsistent outcomes here and in district court. *See* 35 U.S.C. § 325(e)(2). This is particularly true on the facts of this case because all of the discovery and dispositive motion deadlines in the Parallel Proceeding are set to occur well (~ 8 months) before the projected date for a final written decision here, meaning the same issues underlying Petitioner's grounds here would have to be litigated at least near to the point of disposition in the Parallel Proceeding, even if our final written decision was entered prior to

the trial of those issues in the district court. *See* Ex. 2001, 3–4 (setting deadlines). Accordingly, this factor favors denial.

5. Factor 5: whether the petitioner and the defendant in the parallel proceeding are the same party

Petitioner and Patent Owner acknowledge that the parties are the same in this proceeding and in the Parallel Proceeding. Prelim. Resp. 31; Prelim. Reply 7. The district court's Scheduling Order caption names Patent Owner as a plaintiff and Petitioner as the defendant in the Parallel Proceeding. Ex. 2001, 1. Because Petitioner and the defendant in the Parallel Proceeding are the same party, this factor weighs in favor of discretionary denial. *See Fintiv II*, 15 ("[b]ecause the petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial").

6. Factor 6: other circumstances that impact the Board's exercise of discretion, including the merits

The final factor takes into account other circumstances that may bear on the decision to exercise discretion to deny, such as the merits of the patentability challenges. *Fintiv* 14–16. "For example, if the merits of a ground raised in the petition seem particularly strong on the preliminary record, this fact has favored institution." *Fintiv* 14–15.

Patent Owner contends that the grounds asserted in the Petition are weak and based on conclusory testimony from Petitioner's expert that should be given little weight. Prelim. Resp. 31–32; *see also* Prelim. Sur-reply 7 (asserting that "Ground 1 does not address the order of steps and there is no motivation to combine the disparate references addressed in Ground 2"). In reply, Petitioner argues that "the Petition presents a strong

case of unpatentability, whereas Patent Owner's response rests on an untenable claim construction." Prelim. Reply 7.

We find most relevant to this factor, under the circumstances presented here, Petitioner's claim construction contentions concerning the claim term "substantially in an austenitic phase," which appears in dependent claims 2, 7, and 8. Petitioner acknowledges that in the Parallel Proceeding, Petitioner has taken the position that these claim terms are indefinite. Pet. 13. Petitioner also recognizes that whether a claim term is indefinite is not an issue we can resolve in this proceeding. *Id.* at 14 n.2 (citing *Samsung Electronics America, Inc. v. Prisua Engineering Corp.*, 948 F.3d 1342, 1350 (Fed. Cir. 2020) ("[T]he Board may not cancel claims for indefiniteness in an IPR proceeding.")). Petitioner does not affirmatively assert in the Petition an alternative construction of "substantially in an austenitic phase," based, for example, on evidence of its plain and ordinary meaning. Instead, Petitioner asserts that, for purposes of its Petition, it will apply "Patent Owner's apparent interpretation" from the Parallel Proceeding. *Id.* at 14. Petitioner argues, however, that in the Parallel Proceeding, Patent Owner "has not provided what it believes to be the plain and ordinary meaning," of the term. *Id.* at 13. Petitioner further argues as follows:

> To the best that Petitioner can understand Patent Owner's infringement contentions, Patent Owner appears to be arguing that an SMA is substantially in an austenitic phase if only part of the austenitic SMA is transformed to martensite due to the recited step or if the SMA is above the austenite finish temperature (in which case it would be fully austenitic) prior to the recited step.

Id. at 13–14.

In sum, for some of the Challenged Claims Petitioner identifies issues of indefiniteness in claim construction presented in the Parallel Proceeding

that we cannot resolve in this proceeding. Petitioner further purports to rely on a construction of an allegedly indefinite claim term Petitioner asserts is not supported by the evidence of the term's plain and ordinary meaning, and that reflects Petitioner's "best" guess as to what Patent Owner might be arguing in the Parallel Proceeding. This suggests that even if Petitioner has shown a reasonable likelihood of prevailing as to independent claim 1 of the '222 patent, Petitioner's disputes as they relate to the Challenged Claims, as a whole, may be more efficiently addressed in the Parallel Proceeding. At the very least, the Petition does not present a "particularly strong" case on the merits such that this factor would weigh against discretionary denial. *See Fintiv* at 14–15. On balance, this factor is neutral.

7. Balancing the Fintiv Factors

As discussed above, factors 1 and 3–5 each favor denial. Factor 2 is the only factor that favors institution because there is no trial date in the Parallel Proceeding and the evidence presented of a median time-to-trial for civil trials in that district suggests a potential trial date after the statutory deadline for a final written decision in this proceeding. However, Patent Owner also shows that discovery and any dispositive motions will be completed in the Parallel Proceeding well before the statutory deadline for a final written decision in this proceeding, which presents a risk of duplicated efforts given the unmitigated overlap in issues between proceedings. On balance, considerations concerning an uncertain trial date in the Parallel Proceeding under Factor 2 do not outweigh the more substantial reasons identified under the other *Fintiv* Factors. Thus, considering all of the factors holistically, we find on balance that the factors on this unique record weigh in favor of discretionary denial of the Petition. Accordingly, we exercise discretion to deny institution under 35 U.S.C. § 314(a).

IV. ORDER

Upon consideration of the record before us, it is:

ORDERED that the Petition is denied and no trial is instituted in this proceeding.

FOR PETITIONER:

Megan Woodworth
Justin Oliver
Robert Tapparo
VENABLE LLP
mswoodworth@venable.com
jjoliver@venable.com
rctapparo@venable.com

FOR PATENT OWNER:

Clay Holloway
Michael Morlock
John Alemanni
Kasey Koballa
Christopher Damitio
KILPATRICK TOWNSEND & STOCKTON LLP
cholloway@kilpatricktownsend.com
mmorlock@kilpatricktownsend.com
jalemanni@kilpatricktownsend.com
kkoballa@kilpatricktownsend.com
cdamitio@kilpatricktownsend.com